

REMARKS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 2-30 are pending in this application, Claims 2 and 25 having been presently amended; and Claims 27-30 having been added. Support for amended Claims 2 and 25 can be found, for example, in the original claims, drawings, and specification as originally filed.¹ No new matter has been added.

In the outstanding Office Action, Claims 2-4 and 7-8 were rejected under 35 U.S.C. § 102(b) as anticipated by Gordon (U.S. Patent No. 5,364,408); Claims 25-26 were rejected under 35 U.S.C. § 103(a) as unpatentable over Gordon; and Claims 5-6 were rejected under 35 U.S.C. § 103(a) as unpatentable over Gordon in view of Kortenbach (U.S. Patent No. 6,096,051).

In response to the rejection of Claims 2-4 and 7-8 under 35 U.S.C. § 102(b) as anticipated by Gordon, Applicants respectfully submit that amended independent Claim 2 recites novel features clearly not taught or rendered obvious by the applied references.

Amended independent Claim 2 is directed to an organism tissue suturing apparatus including, *inter alia*:

...a body part, with a predetermined length, having a rotary portion and can be inserted into said tissue of said organism from said hole;

two hollow needle members accommodated in a portion, inside said body part, rearward from said rotary portion;

a needle member operation portion for advancing said two hollow needle members toward said rotary portion from a side surface of said body part; and

¹ See Figures 5, 11, and 22.

two openings disposed at a rear-most portion of said body part and communicating with lumens of said two hollow needle members,

wherein said rotary portion has two needle member receiving portions for receiving a distal end of one of said hollow needle members and that of the other of said hollow needle members respectively pressed out of said body part; and a connection duct communicating with said two needle member receiving portions; and

a continuous duct for a suturing thread is formed to range from one of said two openings to the other of said openings through one of said lumens of one of said two hollow needle members, said connection duct of said rotary portion, and the other of said lumens of the other of said two hollow needle members, when said two needle member receiving portions receive said hollow needle members respectively at a same time.

In the organism tissue suturing apparatus of Applicants' Claim 2, the two openings disposed at the rear portion of the body part create an inlet and an outlet of a duct for a suturing thread. The two openings disposed at the rear portion of the body part are located outside of the patient. Thus, it is possible to perform piercing of the organism tissue with the hollow needle members by pressing the operation portion forward (e.g. in a short stroke) so that the hollow needle members disposed slightly outside the organism tissue are accommodated respectively in the needle member receiving portions of the rotary portion disposed slightly inside the organism tissue. Thus, the suturing operation can be performed easily. Further, in one implementation of Claim 2 suturing thread can be inserted into the duct from one end of the suturing apparatus and then exit from the other end of the suturing apparatus. Therefore, it is possible in this implementation to confirm that the suturing operation is being performed from outside the patient.

Turning now to the cited reference, in Figures 1A and 1B of Gordon, the endoscopic device 2 has two needles 6 provided at both ends of catch mechanisms 16 for a suture material 4.

However, Gordon fails to disclose or suggest “a continuous duct for a suturing thread is formed to range from one of said two openings to the other of said openings through one of said lumens of one of said two hollow needle members, said connection duct of said rotary portion, and the other of said lumens of the other of said two hollow needle members, when said two needle member receiving portions receive said hollow needle members respectively at a same time,” as recited in Applicants’ independent Claim 2.

The endoscopic suture system of Gordon does not describe Applicants’ claimed “duct” for the suturing thread. As shown in FIG. 6 of Gordon, the endoscopic suture system has two needle guides 58a and 58b. The needle guides 58a and 58b are constructed from stainless hypodermic tubing, and have pivot pins 60a and 60b pivotally disposed within outer housing bosses 62a and 62b. However, as seen in Figure 4A of Gordon, the end of hollow cylinder 54a does not form a *continuous* duct with the end of needle guide 58a, as there is a gap between the end of the hollow cylinder 54a and the end of the needle guide 58a, which causes a portion of the suturing thread to be exposed. Figure 4A of Gordon shows another gap between elongate flexible tubular member 56a and the hollow cylinder 54a.

Also, Gordon fails to teach or suggest “two openings disposed at a *rear-most portion* of said body part and communicating with lumens of said two hollow needle members,” as in Applicants’ independent Claim 2. Figure 3 of Gordon shows a driver shaft 44 that includes a button 46 and has a hole 48a and 48b, into which is bonded an elongate rigid shaft 50a and 50b. However, Gordon does not describe or show that the holes 48a and 48b are at the rear-most portion of the driver shaft 44, i.e at the button 46. Figure 3 of Gordon shows that the holes 48a and 48b are in the middle of the driver shaft 44 and not at a rear-most portion.

Lastly, the endoscopic suture system of Gordon must use curved needle carriers 84a and 84b. The curved needle carriers 84a and 84b must pierce an organism tissue with needles 88a, 88b, and thus the piercing operation is difficult to perform.

Accordingly, Applicants respectfully submit that amended independent Claim 2 (and all claims depending thereon) patentably distinguishes over Gordon.

Accordingly, Applicants respectfully request the rejection of Claims 2-4 and 7-8 under 35 U.S.C. § 102(b) as anticipated by Gordon be withdrawn.

In response to the rejection of Claims 25-26 under 35 U.S.C. § 103(a) as unpatentable over Gordon, independent Claim 25 recites “advancing a first hollow needle member and a second hollow needle member from side surfaces of the body part to a first needle member receiving portion and a second needle member receiving portion of the rotary portion and penetrating through the blood vessel respectively” and “passing a suturing thread from a proximal end of the first hollow needle member through a first lumen of the first needle member, the first needle member receiving portion, said communication duct in the rotary portion, the second needle member receiving portion, and a second lumen of the second hollow needle member, to a proximal end of the second hollow needle member,” and is believed to be patentable for at least the reasons discussed above.

Accordingly, Applicants respectfully request the rejection of Claims 25-26 under 35 U.S.C. § 103(a) as unpatentable over Gordon be withdrawn.

In response to the rejection of Claims 5-6 under 35 U.S.C. § 103(a) as unpatentable over Gordon in view of Kortenbach, Applicants note that Claims 5 and 6 are dependent on independent Claim 2, and are thus believed to be patentable for at least the reasons discussed above. Further, Applicants respectfully submit that Kortenbach fails to cure any of the above-noted deficiencies of Gordon.

Accordingly, Applicants respectfully request the rejection of Claims 5-6 under 35 U.S.C. § 103(a) as unpatentable over Gordon in view of Kortenbach be withdrawn.

In order to vary the scope of protection recited in the claims, new Claims 27-30 are added. New Claims 27-30 find non-limiting support in the disclosure as originally filed, for

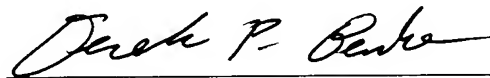
example at page 3, line 13 to page 5, line 21, and page 11, line 18 to page 12, line 11; and Figures 5, 11, and 22.

Therefore, the changes to the claims are not believed to raise a question of new matter.²

Consequently, in view of the present amendment, and in light of the above discussion, the pending claims as presented herewith are believed to be in condition for formal allowance, and an early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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² See MPEP 2163.06 stating that "information contained in any one of the specification, claims or drawings of the application as filed may be added to any other part of the application without introducing new matter."